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NAVY DEPARTMENT

BUMED NEWS LETTER

a digest of timely information

Editor - Captain F. W. Farrar. (MC). U.S.N.

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Circular Letters:

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(Not Restricted)

Report on the Navy Cases in the Joint Army, Navy, and Veterans Administration Study of Streptomycin in the Treatment of Pulmonary Tuberculosis: Thirty-seven patients with moderately and far-advanced pulmonary tuberculosis were treated for 120 days with streptomycin.

The selection of patients, clinical regimen, and laboratory observations were in accordance with criteria determined in advance by conference between the Medical Departments of the Army, Navy, and Veterans Administration.

The problem of selecting patients presented great difficulties. The criteria demanded that each patient have exudative type lesions which had progressed during an observation period of three months of strict bed rest, and, further, that in each patient other therapeutic measures be contraindicated. It was soon evident that only those patients with poor prognosis who had moderately or far advanced disease could be selected for treatment. Only thirty-five were at hand in a hospital with over 1800 tuberculous patients; two patients whose pulmonary disease was stationary during the pretreatment observation period were included. It was obvious that streptomycin would be subjected to a most rigorous test, and treatment was undertaken with misgivings.

The rapid and nearly uniform change in the condition of the patients was most encouraging. Their appetites improved, fevers diminished, weights increased, sputums decreased, pains disappeared, skin lesions healed, and intestinal symptoms disappeared.

By the end of treatment, seven patients, desperately ill before, were considered ready for major surgical procedures, three were nearly ready, and six had improved to such an extent that no collapse measures were deemed necessary.

As has been the experience of other workers, exudative lesions were observed to show the best response to streptomycin. Productive lesions were markedly suppressed. Many cavities grew smaller and some disappeared. Little if any change was noted in lesions which appeared to be densely fibrotic or caseous. In two instances lesions of this type apparently constituted the origin of spread of disease during treatment.

Except for the loss in each patient of function of the vestibular apparatus, toxic reactions attributable to streptomycin, were in general mild. Only two were cause for permanently withdrawing the drug, one of which was the appearance of buccal membrane ulceration, and the other was severe tinnitus with nausea and vomiting.

The clinical impression is that the patients made their best progress toward good health during the first month of treatment. Thereafter progress was slower.

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It was noted that, in general, good clinical results were observed in patients from whom Mycobaterium tuberculosis grew slowly on artificial media; the converse was observed also.

During the first month following cessation of streptomycin treatment the relapse rate was 16 per cent. Factors common to all such cases were extensive exudative infiltration, caseous lesions of moderate or marked extent, total cavity diameter of more than 3 cm., unaffected sedimentation rate and continuously high bacillary count in sputum smears.

Conclusion: In view of the preliminary nature of this report, no conclusion has been drawn other than that the results from the study appear to add to the rapidly growing body of evidence indicating that streptomycin has a potent suppressive effect on the progress of exudative and productive tuberculous pulmonary infiltration but little immediate beneficial effect on caseous or densely fibrotic lesions. The degree of permanence of the beneficial effect cannot be estimated at this time. (Preventive Med. Div., BuMed)

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Cancer and Pulmonary Tuberculosis: Coexistance of cancer and tuberculosis of the lung has long been a topic of interest to both clinician and pathologist. Most writers have expressed the opinion that they are very rarely found together in one individual. Others believe, however, that their association is no more rare than that of other unrelated diseases, and some authors have suggested the theoretical possibility that one may actually predispose to the other.

Whatever the conclusion regarding these ideas, the increasing number of reported cases of cancer coexisting with tuberculosis indicates clearly that the clinical problem is not negligible. Yet in most of the reported cases cancer was found only at autopsy. Even if the association were purely fortuitous, there are reasons to believe that the coexistence of the two diseases in the same patient will be seen with increasing frequency. The present trend for the peak of tuberculosis morbidity and mortality, especially among men, to move into the older age groups is well known. The steadily increasing number of older men with active tuberculosis admitted to Laurel Heights State Tuberculosis Sanatorium, Shelton, Conn., in recent years has strikingly reflected this trend. This is the very group in which bronchogenic cancer is most likely to be found.

Since July, 1940, 7 patients with coexisting bronchogenic carcinoma and active pulmonary tuberculosis were found at Laurel Heights among approximately 1,600 patients of both sexes and of all ages sent in with a diagnosis of pulmonary tuberculosis only. In all 7 patients either a definite or presumptive diagnosis of associated cancer was made before death. Patients diagnosed as having cancer

only, and in whom the preadmission diagnosis of tuberculosis was simply regarded as erroneous, are not included.

Two additional cases, one from the Undercliff Sanatorium and another from the Cedarcrest Sanatorium, are being reported upon with these 7 cases.

Only in one case did the diagnosis of tuberculosis present a problem. In all the others the presence of pulmonary tuberculosis was readily apparent and was promptly confirmed by the finding of acid-fast bacilli in the sputum soon after admission.

The detection of cancer in these cases was difficult because reasons for suspecting a second disease were seemingly meager. Such symptoms as bloody sputum, cough, expectoration, pain in the chest, loss of weight, etc., and such findings as secondary anemia and X-ray densities of the most heterogeneous character are so common in tuberculosis that they are likely to be taken as a matter of course. Evidences of cancer tend, therefore, to be obscured by the tuberculosis. In every one of these cases, however, there were features, either upon admission or developing later, which led to the suspicion of cancer, and from this to a specific and detailed search for the disease.

To the extent that can be judged from an analysis of this group of 9 patients with pulmonary tuberculosis and bronchogenic carcinoma, the following conclusions appear to be justified:

All patients recognized by the authors as having coexisting disease were men and all were over 50 years of age.

In four cases a history of significant exposure to silica dust was given.

In tuberculous as in nontuberculous patients, suspicion of cancer rests first upon the correlation of clinical and roentgenological findings. Tuberculosis alone is capable of producing all the prominent symptoms encountered in these patients. Hence, history, symptoms, and clinical findings generally contributed far less to the initial suspicion of cancer than did X-ray examination. Clinical features were of great importance, however, when they failed to conform to the pattern usually expected to result from uncomplicated tuberculous lesions of the extent and characteristics as shown by X-ray.

Although there are individual exceptions, notably among Negroes, the principal lesions of adult reinfection pulmonary tuberculosis occur typically in the peripheral lung zones, not near the hilum. Tuberculous lesions projected into the hilum in single posterior-anterior roentgenograms usually occupy the

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apex of a lower lobe. Hence, when posterior-anterior and lateral films indicate true hilar infiltration, cancer should be suspected - the more strongly if a mass is suggested or if hilar lymph nodes are involved. Such findings can often be demonstrated far more clearly in good laminagrams than in plain roentgenograms.

The finding, by conventional films, of evidences of major bronchial obstruction or of a relatively circumscribed solid mass was the basis for initiating more definite diagnostic procedures in the majority of this series of cases. Although the former may be caused by tuberculous bronchostenosis or by pressure of enlarged tuberculous lymph nodes, and the latter by tuberculoma, the need for further investigation is apparent, especially in older patients.

The diagnostic procedures available for the confirmation of existing cancer are well known. These are bronchoscopy, biopsy of suspected metastatic lesions, cell block of formalinized sputum, cell block of formalinized pleural fluid sediment, needle biopsy and surgical exploration. To be of diagnostic value, cell blocks of pleural fluid sediment require prolonged search of many sections.

None of the patients reported upon here was deemed operable at the time of diagnosis. Hence, the advantage of having the diagnosis made before death rather than at autopsy alone was slight indeed from the therapeutic point of view. There were practical advantages, however, in that more intelligent prognosis and management were made possible.

Since pulmonary resection is now feasible in many cases of tuberculosis, the practical desirability of much earlier diagnosis of coexisting cancer is apparent. It is, perhaps, not too much to hope that diagnosis of cancer in an operative stage may occasionally be accomplished in spite of the added difficulty which exists when tuberculosis is also present. It is emphasized that the greatest obstacle in diagnosing carcinoma in the presence of tuberculosis is the failure to suspect a second major disease. (Am. Rev. Tuberc., Dec. '46 - B. Gerstl et al.)

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Observations on the Development of Streptomycin Resistance by Meningococcus: In studying the action of penicillin on meningococcus and gonococcus the authors became interested in the development of resistance by bacteria to the antibiotic drugs.

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It was found that when either of these micro-organisms was repeatedly transferred onto media containing increasing concentrations of penicillin, it readily acquired resistance to the drug. For example, it was demonstrated that after 150 transfers a strain of meningococcus was able to grow on media containing 5,000 units of penicillin per milliliter.

When the same procedure was tried with streptomycin a surprising difference was observed in the rate at which resistance was developed. After 2 or 3 transfers onto agar containing increasing concentrations of streptomycin, meningococci were able to grow on media containing 75,000 micrograms per milliliter.

These streptomycin-resistant meningococci retained their original virulence for mice and showed no such change in microscopic appearance as had been observed in penicillin-resistant meningococci. They did, however, show slight differences in colony development. These differences were at first disregarded as insignificant but later found to be of considerable interest.

The striking contrast in the effect of these 2 antibiotics on meningococci seemed to present a problem of considerable theoretical interest and one of great practical importance, for clinical experience had already shown that infections in man might very quickly become resistant to treatment by streptomycin.

To study the problem further more experiments were carried out. Heavy seedings of meningococcus were made on a series of agar plates containing graded concentrations of streptomycin. At the optimum bactericidal concentration of the streptomycin, no growth or at most a very few colonies developed. On concentrations somewhat higher, 2 types of colonies appeared: (a) numerous small gray ones which were dead by the time they became visible, and (b) a few large, moist colonies which differed from the normal in color and consistency sufficiently to be considered variants. The latter were streptomycin-resistant and fully virulent and appeared in greater numbers on the higher concentrations of streptomycin.

These observations suggest that streptomycin concentrations exceeding the optimum bactericidal concentration facilitate the development of resistant variants. (From a paper presented at a recent meeting of the Antibiotics Study Section of the National Institute of Health, USPHS, by C. P. Miller and M. Bohnhoff of the Department of Medicine, University of Chicago)

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Amorphous vs. Crystalline Penicillin: During the past two years there have appeared in the literature various bits of information indicating that in certain lots of amorphous penicillin there are substances of therapeutic importance which do not appear in the crystalline product. In July 1944 Cornman stated that there was present in Squibb and Reichel penicillin preparations an agent which exerted a selective lethal effect upon rat and mouse sarcoma cells growing with normal cells in tissue cultures. Subsequent studies along the same lines by Lewis showed that the selective effect was not exerted by highly purified colorless penicillin, but rather that the effect was due to some substance present in the less highly purified material along with the bacteriostatic factor.

In March 1945 Dunham and Rake showed that 8800 units per milliliter of crystalline penicillin G had little or no effect on the motility of Treponema pallidum exposed to it for 2 hours in vitro; however, under the same conditions 220 units per milliliter of the nonpurified penicillin employed in their studies immobilized all of the spirochetes. They stated that the active substance or factor in the amorphous penicillin could be concentrated by adsorption on alumina and recovered by elution, and that its activity was not significantly reduced when treated with penicillinase. They further showed that the immobilization produced by the amorphous penicillin was probably not due to penillic acid or to products resulting from the hydrolysis of pure penicillin G.

Smith of Chas. Pfizer & Company, Inc., has demonstrated that penicillins G, K, and dihydro F are all relatively inactive in inhibiting germination of seeds, but commercial penicillin may be readily demonstrated to contain antigermination activity. He concluded that the substances present in commercial penicillin which cause inhibition of germination are represented by the indole-3-acetic acid type of compound.

At the conference on penicillin held in March 1946, Clowes, of Eli Lilly and Company, stated that on the basis of their studies they had reason to believe that there was something in commercial penicillin which prevented the development of marine eggs, but that crystalline penicillin under similar test conditions had no such effect. At the same meeting Hobby, in discussing the chemotherapeutic action of various penicillins on hemolytic streptococcal infections in mice, pointed out that from 60 to 100 units of crude penicillin manufactured at various times from 1943 to 1946 was found to be as effective as from 200 to 300 units of crystalline G penicillin. Furthermore, with a sample known to contain from 30 to 40 per cent penicillin K, complete protection was obtained in mice with fewer units than would give complete protection when crystalline G or pure penicillin K was used. Hobby stated at that time that crude or partially purified penicillin was more effective than crystalline penicillin G against hemolytic streptococcal infections in mice, and that the presence of penicillin K,

although less effective when pure than crystalline G, does not alter the protective action of crude penicillin preparations.

During the past year, the basic manufacturers of penicillin have made strenuous efforts to place crystalline material on the market. With some manufacturers this has been to the exclusion of the amorphous material. In view of the data available, even though somewhat tenuous, it appears questionable whether amorphous penicillin should be gradually eliminated from the market. The Food and Drug Administration laboratories have available the products of each of the basic manufacturers, and over the period of several years that they have been testing penicillin there has accumulated from stability and other studies a number of vials of old lots of amorphous penicillin from various manufacturers. It occurred to the authors some time ago that an attempt should be made to determine whether it was possible, in the absence of in vitro methods, to demonstrate by some biological method the presence or absence of the "ethereal factor" which appeared to exist in certain lots of commercial amorphous penicillin.

The authors, therefore, carried out studies in which: (a) they developed a method for demonstrating the presence of an enhancement factor in commercial penicillin, (b) they used this method for screening various lots of penicillin of the fifteen basic manufacturers to determine the percentage of lots containing the "factor," and (c) they determined the effect of acid, penicillinase, heat, etc., on the factor.

In summarizing the results of their studies, the authors stated:

1. The presence of a factor in penicillin which markedly enhances penicillin activity while being devoid of activity in vivo itself may be determined.

2. The factor is not inactivated by heating at 100°C. for 48 hours nor by penicillinase.

3. The factor enhances the effectiveness of each of the fractions G, F, X, K, and dihydro F proportionately to their basic in vivo activity.

4. Examination of random samples of relatively old commercial lots of penicillin produced by the 15 basic manufacturers indicates that approximately 60 per cent contain the factor.

5. Examination of a single lot of recent manufacture (amorphous penicillin) from 11 producers indicates that approximately 40 per cent contain the factor. (From a paper presented at a recent meeting of the Antibiotics Study Section, National Institute of Health, USPHS, by Henry Welch et al. of the Food and Drug Administration)

(Not Restricted)

The Administration of Penicillin in Oil and Wax, Stock No. 1-606-785: Considerable difficulty has been experienced in the administration of penicillin in oil and wax. The difficulties have operated to the point of deterring the clinical use of this valuable therapeutic preparation. It is believed that the following information excerpted from articles by the original investigators of penicillin in oil and wax will be helpful as a guide.

Penicillin in oil and wax should be refrigerated at a temperature not exceeding 59°F. The product should be removed from the refrigerator from 12 to 24 hours before intended use. From room temperature the vial should be warmed to a temperature of from 113°F. to 140°F. by holding under a hot water tap (from 130° to 140°F.) or placing in a water bath until the contents are completely liquid. Thorough shaking at intervals will insure uniform warming throughout the vial.

The use of a 5-c.c. Luer-Lok syringe is recommended to facilitate the injection and to insure that the needle will not be forced off by the pressure required for the injection. The syringe and needle must be perfectly dry, warm, and sterile. Any moisture introduced into the vial will render the preparation ineffective for subsequent use by causing the penicillin to separate from the oil and wax. Attach a 20-gauge needle to the empty syringe and insert in the selected muscle. Withdraw the plunger slightly to determine that the needle is not in a vein. Intravenous administration of the oily mixture must be avoided. If no blood appears when negative pressure is applied, detach the syringe and leave the 20-gauge needle in the muscle.

Withdraw the required amount of penicillin in oil and wax from the warmed vial using an 18-gauge needle. Filling the syringe will be facilitated by admitting 1 c.c. of air above the column of penicillin just before withdrawing the material from the vial. Allow the syringe and contents to cool to body temperature before the injection is made.

Finally remove the 18-gauge needle and inject the contents of the syringe into the muscle through the 20-gauge needle previously left in place. Avoid massage of the injection site as delay in absorption is desired.

The preferred site for the intramuscular injection is the upper outer quadrant of the buttock but the anterior thigh or triceps muscles may be used as alternative sites.

Syringes and needles may be cleansed by scrubbing thoroughly with soap followed by the use of carbon tetrachloride, benzol, chloroform, ether or xylene. (MatDiv., BuMed)

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Dissolution of Substance of Teeth by Lemon Juice: In recent years, the marked increase in the use of lemon juice has been accompanied by injury to the structure of teeth.

In instances wherein loss of structure is caused by acid solutions, four findings are of more or less common occurrence:

1. Teeth may be hypersensitive to thermal changes and hygroscopic substances. This may be a major complaint and is often the patient's primary reason for seeking the services of the dentist.

2. Often stain and stain lines are absent, a fact which gives one the impression that measures of dental prophylaxis have been applied recently.

3. Defects in enamel produced by action of acid solutions usually have rounded margins, but defects produced as a result of mechanical wear only have sharp margins.

4. A finding which probably is of greatest diagnostic value is the presence of fillings which project above the surface of the teeth.

Miller has shown that dental fillings tend to wear away as rapidly as does enamel in the event that the loss is produced by mechanical wear only, whereas when the teeth come in contact with acids, the enamel is worn away more rapidly than are fillings. He also showed that mechanical wear is initiated and greatly accelerated when teeth are subjected to the action of acid solutions.

Etching and decalcification of the substance of teeth, produced by the action of lemons, have been noted for many years, but, until recently their occurrence in any appreciable amount was limited to certain peoples and geographic regions. Increased production and wider distribution of lemons and other citrus fruits have led to marked increase in their consumption; now they are available almost at all times. This, no doubt, has brought about a highly beneficial improvement in the diet, for citrus fruits are a relatively cheap, rich, and convenient source of vitamin C. However, some habits and methods related to the use of citrus fruits apparently have resulted in definitely destructive effects on the teeth.

Persons in whom destruction of dental substance, presumably by lemons, has been observed consist mainly of those who have sucked lemons and those who have taken lemon juice in water as an intended therapeutic measure. The sucking of lemons can produce marked defects on the labial surfaces of the upper anterior teeth, but fortunately the occurrence of cases from this practice is not frequent and, therefore, relatively unimportant. By far the most insidious

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and prevalent way of taking lemon juice in cases in which destruction is found is the use of interval feedings of the juice in water as an intended therapeutic measure. This solution is taken most often immediately upon arising in the morning.

Of fifty patients who were using lemon juice as a therapeutic measure and who also showed evidence of dissolution of dental structure, thirty-nine were women and eleven were men, a ratio of approximately 4:1. The patients came from twenty-two states, two Canadian provinces, Mexico and Puerto Rico; this finding suggests that use of lemon juice as a therapeutic measure is widespread. In almost all instances dental examination was incidental to the general physical examination. In a few instances the presence of dental defects was a major complaint; these patients were seen primarily because of the dental complaint.

It is probably among persons who are seeking medical service and particularly among those who are suffering from a chronic illness that the largest number of drinkers of lemon juice may be seen. The use of lemon juice was most common among persons who were suffering from rheumatism. The juice also was used for the treatment of constipation, to prevent and relieve colds and, occasionally, as a tonic. When used as part of a weight-reducing diet, the juice most often replaced entire meals. In most instances patients were aware of the high vitamin C content of lemons and desired an adequate intake of that vitamin.

In the cases studied the degree and rapidity of decalcification undoubtedly varied from person to person even though the lemon juice was taken in like quantities and under similar conditions. A marked degree of decalcification was observed in the teeth of some persons who had used lemon juice for a few months only, but in other cases the teeth had undergone less decalcification following use of this juice for more than a year. This variation may be due to differences in the amount of saliva and its buffer capacity.

It seems, therefore, that marked dissolution of dental structure may occur as a result of drinking lemon juice, particularly if the juice is taken daily and at times other than with meals. In a few of the cases studied lemon juice had been prescribed by professional persons; in some it had been taken on the advice of nonprofessional persons; in the majority of cases, however, its use had been begun as a result of reading advertisements which advocated drinking lemon juice. It is a concern of everyone who deals with diet that there be adequate intake of vitamins, including vitamin C. It is obvious, however, that an adequate amount of vitamin C can be had without resorting to the improper use of lemon juice. In view of its harmful effects on the teeth the use of lemon juice as a daily drink in any appreciable concentration should be discouraged. (Proc. Staff Meet., Mayo Clinic, March 5, '47 - E.C. Stafne and S. A. Lovestedt)

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Pressure Effects of Contact Lenses: The first contact lenses, the Müller lenses, were made by a glass-blowing process, similar to that for making artificial eyes. Neither the corneal section nor the scleral section of these lenses were made with any degree of scientific accuracy. In spite of this, however, the occasional successes which these lenses afforded, especially in cases of conical cornea, spurred on further research. The next step was completely opposite; the Zeiss glass ground lenses in which both the corneal section and the scleral section were ground with scientific precision.

The corneal section perfected by precision grinding more than 30 years ago has not been improved upon except that it is now made of plastic. The scleral section, however, ground as it was on spherical tools gave but a limited number of successful fittings. Subsequent improvements in contact lenses concerned themselves chiefly with perfecting the scleral portion so as to make the lens more comfortable to the wearer.

As the spherically ground scleral section did not prove satisfactory in most cases, a toric system of scleral curves was designed. These yielded a greater number of successful fittings than the spherical curves had, but they still fell far short of solving the problem of a comfortable scleral fit.

The idea was then conceived that if the scleral portion of the lens was made from a mold or impression of the eye, it would give a good comfortable fit. The idea seems reasonable, but in practice has not worked out. Most of the lenses made from a mold exert too much pressure on the eye and a great many are uncomfortable. This occurs in spite of numerous adjustments, extending over a period of many months during which the lenses are ground out, tightened, loosened, and so forth.

In the search for a better scleral section, the idea was conceived to make the bearing surface of the scleral section a portion of a cone. A lens was designed so that the bearing, conic section touched the sclera on a tangent, resting only on a narrow rim of from 1 to 2 mm. This has proved very satisfactory and caused a revision of one of the cardinal principles which governed contact-lens fitting.

From the earliest days of contact-lens fitting, it has been assumed that the larger the bearing surface of the lens on the eye the more comfortable the lens would be. The idea was that the larger bearing surface would distribute the pressure over a larger area of the eye and thus produce minimum pressure everywhere.

But the idea, plausible as it sounds, is based on a fallacy, namely, that the pressure between the eye and contact lens is gravity pressure. However,

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the force acting between the contact lens and the eye is essentially one of adhesion. This adhesive force interferes least with the functions of the eye when it is limited to a small area, and the smaller the bearing surface upon which this adhesive force acts, the more comfortable the lens is on the eye. This principle is utilized in the tangent-cone contact lens. The bearing surface of the scleral portion is part of a cone which rests tangentially to the eyeball. It is adherent only over a narrow rim of from 1 to 2 mm.

The clue to this principle of fitting came from observations made on impression-molded lenses. It was found that, when these lenses were adjusted so as to fit the sclera "like a glove," they were more uncomfortable than when they were adjusted so as to have a smaller bearing surface more or less tangential to the eyeball. Following up this clue led to the design of the tangent-cone lens. (Am. J. Opth., March '47 - J. I. Pascal)

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(Not Restricted)

The Treatment of Enuresis in Children by Means of Chorionic Gonadotropin: The authors offer a method for the treatment of enuresis in children which they claim gave excellent results in a high percentage of a small series of cases.

By definition, the term enuresis means urinary incontinence, mainly limited to lack of control in persons over the age of three, and mainly in the form of bed-wetting.

It may take years for a mother to realize that her child will usually not outgrow enuresis quickly, but once she has reached that stage something spectacular must be done.

The authors' method of treatment is based on the fact that this type of incontinence in children is due to one of three things: (1) improper toilet training, (2) developmental lack of urinary sphincter control, or (3) some psychogenic factor. The older the child, the greater is the likelihood that he would be classified in this last group. It is surprising how often enuresis runs in families.

In this method of treatment injections of chorionic gonadotropin (antuitrin-S, P. D. & Co. 500 units per c.c.) are administered. Beginning at 0.1 c.c. twice weekly, the dosage is increased according to tolerance to a maximum of 1 c.c. twice weekly; from 0.1 c.c. to 0.2 c.c. is given intradermally, and the rest subcutaneously. The usual limit is around six injections with no other orders or medications.

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The intradermal route of treatment was chosen for the purpose of determining the presence of any sensitivity and to impress on the mother and more firmly on the subconscious mind of the child that he is going to be cured. The gonadotropin in the meantime exerts an effect on the development of the child's genito-urinary system. The limit of about six injections was determined upon since those who are going to benefit will have begun to improve by the third, and if unimproved by the sixth would not likely benefit by further injections. The treatment is continued until at least one week has passed without bed-wetting and until at least 5 injections have been given. From the authors' experience the child is either cured or markedly improved within three weeks.

This series includes records of 16 patients, ranging from 3 to 15 years of age, none of whom had had previous treatment, and all without demonstrable genito-urinary disease. The table below shows the schedule of treatment and results.

TABLE 1. *Enuresis in Children*

No.	Name	Sex	Age	Duration of Symptoms	Previous Treatment	Units of Ant. "S"	Results	Follow-Up
1	A. S.	M	4	Since birth	Diminished fluid intake	2,000	Improved	
2	C. M.	M	10	"	"	3,000	Cured	No recurrence
3	C. T.	F	5	"	"	2,500	Improved	
4	J. C.	F	5	"	"	2,000	Improved	
5	A. S.	F	13	"	"	500	Cured	No recurrence
6	W. B.	M	6	"	"	5,500	Improved	
7	J. K.	M	7	"	"	2,500	Improved	
8	R. B.	M	13	"	"	3,500	Cured	No recurrence
9	E. C.	F	7	"	"	1,500	Cured	No recurrence
10	C. H.	M	4	"	"	1,100	Improved	
11	C. K.	F	5	"	"	1,725	Failure	
12	R. S.	M	8	"	"	2,750	Cured	No recurrence
13	E. E.	M	13	"	"	3,475	Improved	
14	D. M.	F	2	"	"	1,100	Improved	
15	E. D.	M	10	"	"	4,000	Cured	No recurrence
16	P. M.	M	9	"	"	400	Cured	No recurrence

It is seen that 7 patients (43.8 per cent) were cured, 8 (50 per cent) were definitely improved, and 1 (6.2 per cent) was a complete failure.

A patient was classified as improved when there was a definite change for the better in his condition. Usually, those who wet the bed from three to five times weekly or even nightly were reduced to a frequency of about once a week, and often only under emotional stress or exhaustion. Those cured were mostly in the older age group, and in following them up about three years later it was found that they had remained cured.

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No complications were noted during the treatment, and the only noticeable reaction was some development of the genitalia in boys who received the larger doses.

It is quite conceivable that if the cause is purely psychogenic, the condition may recur, and the patient require a second series, or definite psychiatric treatment. Also in a larger series, the results would probably be better in the male than in the female, since a treatment that develops the gonads would develop greater control in the male because of the closer relationship between the urinary sphincter and the gonads.

Listed below are two representative cases:

1. R.S., male, 8 years old, wet the bed regularly and was unable to control urine from the street into the house. His urinalysis was negative. Following the third injection the mother considered him cured, but the treatment was continued until six injections had been given, and he remained free of enuresis. Apparently, the cause had been a matter of poor control.

2. A.M.S., female, 13 years old, wet the bed about three times weekly steadily since birth. Her urinalysis was negative. Under this treatment her enuresis stopped completely after the first injection, but a total of 500 units was given, and she has remained continent ever since. The cause evidently had been psychogenic.

Although the number of cases in this series is small, it is believed that the treatment described is a simple and satisfactory method of handling cases of functional enuresis in children that deserves further trial. (Arch. Pediat., Feb. '47 - M.S. Cioffari and H.G. Clark)

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(Not Restricted)

Abstracts of Reports on Research Projects:

X-443
Rep. No. 3
16 Dec. '46

The Treatment of Decompression Sickness.

The prime objective in the treatment of decompression sickness is the rapid restoration of normal blood supply by immediate recompression which serves to reduce the size of gas emboli and of bubbles in tissues in proportion to the amount of pressure applied. The principles of recompression and the employment of oxygen have long been known but the formulation of specific procedures with reference to symptomatology only recently has been accomplished.

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As a result of experiments conducted at the Harvard School of Public Health and of the cumulative experience gained during the past ten years at the Experimental Diving Unit, U.S. Naval Gun Factory, Washington, D.C., it has been possible to develop in comprehensive tabular form an outline for the treatment of decompression sickness which includes three basic principles. These are: (a) the limitation of the maximal pressure applied during recompression to 65 pounds per square inch gage and the maintenance of this pressure for periods of at least 30 minutes and for as long as two hours, (b) a prolonged recompression for periods of from 12 to 24 hours or longer at pressure levels equivalent to depths between 30 and 60 feet, and (c) the inhalation of oxygen at pressure levels equivalent to 60 feet or less in order to promote the more rapid elimination of nitrogen. The tabulation is shown on the opposite page.

These procedures have been employed successfully in the treatment of 113 divers who developed decompression sickness; in 109 of the patients the treatment was successful. The other four patients developed recurrences of their symptoms following treatment. Of the four recurrences, two may be attributed to insufficient recompression and one was due to the employment of faulty oxygen breathing apparatus.

Four of 75 patients treated with the procedures involving the use of oxygen developed symptoms of oxygen toxicity, three of them mild and one terminating with a convulsion. These symptoms are relieved promptly by discontinuing the administration of oxygen. (Nav. Med. Res. Inst., Bethesda, Md. - G.J. Duffner et al.)

(Not Restricted)

X-678
Rep. No. 1
24 Feb '47

A Study of the Effect of Breathing Oxygen or Normal Air after Exposure to an Atmosphere having a High Concentration of Carbon Dioxide.

The efficiency of personnel escaping from a submerged submarine may be greatly affected by the composition of the air in the submarine. For example, the mental confusion, dizziness, nausea and dyspnea caused by high carbon dioxide may disrupt the discipline and morale necessary to execute a swift and orderly escape, and some men may be so incapacitated as to be unable even to attempt an escape. Furthermore, it has been known for many years that when a person breathes normal air

(Not Restricted)

DESCEND 25 ft. /min.

ASCEND 1 min be- tween stops

"BENDS"-PAIN ONLY		SERIOUS SYMPTOMS	
Pain relieved at depths LESS THAN 66 ft. Use table 1 A if O_2 is not available	Pain relieved at depths GREATER THAN 66 ft. Use table 2 A if O_2 is not available If pain does not improve within 30 min. at 165 ft. the case is probably not bends. Decompress on Table 2 or 2 A	Serious symptoms include any one of the following. 1. Unconsciousness 2. Convulsions 3. Weakness or inability to use arms and legs. 4. Any visual disturbances. 5. Dizziness 6. Loss of speech or hearing. 7. Severe shortness of breath or "chokes".	
		Symptoms RELIEVED within 30 min. at 165 ft. Use table 3	Symptoms NOT RELIEVED within 30 min. at 165 ft. Use table 4

STOPS		TIME IN MINUTES UNLESS OTHERWISE INDICATED					
Lbs.	Ft.	Table 1	Table 1A	Table 2	Table 2A	Table 3	Table 4
734	165			30 (Air)	30 (Air)	30 (Air)	30 to 120 (Air)
62.3	140			12 (Air)	12 (Air)	12 (Air)	30 (Air)
53.4	120			12 (Air)	12 (Air)	12 (Air)	30 (Air)
445	100	30 (Air)	30 (Air)	12 (Air)	12 (Air)	12 (Air)	30 (Air)
55.6	80	12 (Air)	12 (Air)	12 (Air)	12 (Air)	12 (Air)	30 (Air)
26.7	60	30 (O_2)	30 (Air)	30 (O_2)	30 (Air)	30 (O_2 or Air)	6 hrs. (Air)
22.3	50	30 (O_2)	30 (Air)	30 (O_2)	30 (Air)	30 (O_2 or Air)	6 hrs. (Air)
17.8	40	30 (O_2)	30 (Air)	30 (O_2)	30 (Air)	30 (O_2 or Air)	6 hrs. (Air)
13.4	30	↑	60 (Air)	60 (O_2)	2 hrs. (air)	12 hrs. (air)	First 11 hrs. AIR Then 1 hr O_2 or AIR
8.9	20	5 (O_2)	60 (Air)	↑	2 hrs (air)	2 hrs. (air)	First 1 hr. AIR Then 1 hr. O_2 or AIR
4.5	10	↓	2 hrs (air)	5 (O_2)	4 hrs. (air)	2 hrs. (air)	First 1 hr. AIR Then 1 hr. O_2 or AIR
SURFACE		↓	1 min (air)	↓	1 min (air)	1 min (air)	1 min (O_2)

If symptoms return DURING treatment recompress to depth of relief but never less than depth of 30 ft. and complete decompression from this depth according to table 4.

If dizziness, nausea, muscular twitching or blurring of vision occurs while breathing oxygen, remove mask and proceed as follows: (a) if using table 1, complete remaining stops of table A; (b) if using table 2, complete remaining stops of 2A; (c) if using table 3, complete remaining stops of table 3 breathing air. At the discretion of the Medical Officer, oxygen breathing may be resumed at the 40 and 30 foot stops for a total of 90 minutes if using table 1 or 3 and 150 minutes if using table 2.

Treatment of Caisson disease and air embolism

(Not Restricted)

after breathing an atmosphere high in carbon dioxide, severe headache commonly occurs and occasionally nausea and vomiting. Therefore, it was considered advisable to conduct a study in which these symptoms would be reproduced by exposure of subjects in a recompression chamber to an atmosphere having a high concentration of carbon dioxide and subsequently to oxygen or to normal air. The principal objective was to discover whether air or oxygen had the greater effect on the subjects.

Twenty-five experiments were performed in a chamber in which men were exposed for from one to 4 hours to an atmosphere containing carbon dioxide, the final concentration of which varied between 4 and 9 per cent. In 12 of the experiments the concentration of carbon dioxide was increased by having the men exercise on a stationary bicycle, and in 13 it was released from a cylinder.

At the end of three of the experiments the chamber was ventilated with compressed air and the pressure in the chamber was then increased to 59.2 pounds per square inch absolute. At the end of five experiments, oxygen was breathed, and after 17 experiments the men left the chamber and breathed room air.

In men who were affected, headache was invariably present and was nearly always the only symptom. When the final concentration of carbon dioxide exceeded 7 per cent almost every subject was dizzy and midly confused; when it exceeded 8 per cent every subject was affected. In all experiments nausea and vomiting were uncommon.

When the subjects left the chamber and breathed room air, the average duration of the headache was two and one-quarter hours, but when the pressure was increased or when oxygen was breathed the headache decreased or disappeared within 15 minutes. (Nav. Med. Res. Inst., Bethesda, Md. - R. Hayter and G.J. Duffner)

(Not Restricted)

X-630
Rep. No. 8
19 Dec. '46

The Physiological Effect of Compressive Forces on the Torso.

Under the stimulus of military aviation the physiological responses of the human body to radial accelerations have been carefully investigated. Until very recently, relatively few investigations have been undertaken to study the physiological problems of linear acceleration. With the advent of jet and rocket propulsion these studies will have added significance.

(Not Restricted)

During the earlier phases of the investigation of deceleration, it became apparent that human subjects would have to be used if experimental results were to be applied with any degree of validity to problems incident to aircraft accidents involving large decelerative forces.

During the course of experiments in which impact loads were cautiously and progressively increased, it was learned that if the duration of impact was prolonged, the configuration of the force-time curve could be changed and the peak force would be diminished.

Since the physiological effects of prolonged compression of the human thorax by large static loads had not been studied heretofore, and because the prolongation of impacts was contemplated, it was considered desirable to investigate these effects.

The authors summarize the report of their study with the following remarks:

Biophysical technics were utilized to study the effects of impact forces and of static loading on volunteers. These technics included the use of the electrocardiograph, thermocouple respirometer, and a photoelectric cell for determining ear pulse and ear opacity. Electrical wire strain gages were employed for pulse and pressure determinations.

A static load of 550 pounds was applied to the anterior chest and abdomen of eight male volunteers by the use of traction on a vest type restraining harness. With this static load, thoracic respirations diminish or cease, pulse pressure approaches zero, the ear volume increases, and a moderate relative bradycardia is demonstrable.

Impact loads varying from 1500 to 3000 pounds produce a rapid increase in ear opacity from 50 to 90 milliseconds after the impact. This increase in ear volume probably represents a vascular transmission wave initiated by sudden abdominal and thoracic compression. Impacts usually are preceded by a rapid and shallow respiratory pattern. Apnea occurs immediately after the impact followed within five to ten seconds by deep and slow respirations. Forced expiration against a partially open glottis

(Not Restricted)

has been found to be the best method to protect subjects during impacts.

Impacts causing little or no discomfort do not materially alter the electrocardiographic patter. Impacts causing minor distress are followed by a sudden transient slowing of the heart rate of from 10 to 20 beats per minute. With more painful impacts, an immediate bradycardia of 55 beats per minute has been observed. This bradycardia probably is due to direct vagal stimulation although other mechanisms may be involved. The radial and ear pulses reflect the changes in heart rate seen in the electrocardiograph. (Nav. Med. Res. Inst., Bethesda, Md. - H. R. Bierman et al.)

(Not Restricted)

X-535
Rep. No. 9
30 Dec. '46

Method for Testing Ointments and Fabrics to Determine their Effectiveness as Barriers to Schistosoma Cercariae.

During the war it was necessary to test ointments and different types of clothing to determine to what extent they could be relied upon for the prevention of infection of military personnel by schistosome cercariae. In this report a method is outlined which permits a rapid screening of suggested protective materials. (Nav. Med. Res. Inst., Bethesda, Md., - R. E. Kuntz, et al.)

NOTE: Those interested in seeing copies of the complete reports should address thesir request to the Research Division, BuMed.

Opinions or conclusions contained in these reports are those of the authors. They are not to be construed as necessarily reflecting the views or the endorsement of the Navy Department. Reference may be made to those reports marked "Not Restricted" in the same way as to published articles noting authors, title, source, date, project number, and report number. No part of the content of RESTRICTED reports may be published, reproduced, or referred to in articles for publication without permission obtained through the Bureau of Medicine and Surgery.

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(Not Restricted)

Bumed News Letter to Continue in a "Restricted" Category: It has been determined that the Bumed News Letter can best continue to accomplish its purpose - the dissemination of professional information to personnel of the Medical Department of the Navy - by maintaining it in a "Restricted" category.

The News Letter office receives frequent inquiries concerning the significance of the term "Restricted" and whether collections of Bumed News Letters may be given to civilian medical libraries, hospitals, or medical societies, etc.

It is believed that the following copies of correspondence in this connection from the Bureau of Medicine and Surgery will further clarify the situation:

Dear Sir:

In accordance with Article 76, U. S. Navy Regulations and recent directives of the Chief of Naval Operations, it is necessary for this Bureau to have on file a signed written statement from all recipients of classified information, except personnel of the Naval and Military Establishments, that they will take all the necessary precautions for the safeguarding of the security of such information.

In order for this Bureau to place or retain your name on the mailing list for the classified information listed below, you are requested to sign the attached statement and return it immediately.

H. L. PUGH
Rear Admiral, (MC) USN
Deputy and Assistant Chief of Bureau

* *

To: Chief of the Bureau of Medicine and Surgery
Attn: Code 2124

Statement Regarding the Safeguarding of Security of Restricted Information.

Having been informed that restricted matter may not be published and that it may not be communicated to anyone except for official purposes, I agree to take all the necessary precautions to prevent the information from falling into the hands of persons not authorized to possess it. When the restricted matter in my possession is no longer required, I will destroy it by burning.

I will notify the Bureau of Medicine and Surgery of any change in my address and also when the restricted information is no longer desired.

Date **Signature** **Mailing Address**

(Not Restricted)

Bumed News Letter to All Ships and Stations to Which Medical Department Personnel are Attached: Because of the increasing number of requests received in the Bureau that the Bumed News Letter be sent to individual ships and stations, the Surgeon General has approved the recommendation that all ships and stations to which Medical Department personnel are attached be placed on the distribution list to receive copies of the News Letter.

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(Not Restricted)

Postgraduate Specialty Training Now Available: There are vacancies in civilian institutions and residencies in naval hospitals in Anesthesia, Neurology, Pathology, Psychiatry, Urology, and Physical Medicine available for Regular Navy Medical Corps officers.

(a) Anesthesia - There are two vacancies in a six-month course in Anesthesia at the Mayo Clinic.

(b) Neurology - There is one vacancy in Neurology at either the New York Neurological Institute or Jefferson Hospital, Philadelphia, Pa.

(c) Pathology - There are three residencies in naval hospitals on the East Coast in Pathology open at this time. There are three openings in civilian institutions in Pathology (see Bumed News Letter dated 31 Jan 1947).

(d) Psychiatry - There are two twelve-month residencies in Psychiatry available in naval hospitals at this time.

(e) Urology - There are 6 twelve-month residencies in naval hospitals which have not been filled.

(f) Physical Medicine - There are two vacancies at the Mayo Clinic for a course in Physical Medicine. Officers interested in this specialty should consider all the many new developments and possibilities in therapy and research in this rapidly growing field.

Requests for these openings are desired from medical officers of the Regular Navy. This training is acceptable by the various specialty Boards concerned and these openings offer excellent graduate medical training. Requests from Reserve medical officers will be considered ONLY if they have requested transfer to the Regular Navy. Further information will be furnished upon request. (Professional Div., BuMed)

(Not Restricted)

Official Changes in BuMed Section of Catalog of Navy Material: The following items are now available for issue by Naval Medical Supply Depots:

Expendability	JAN No.	Nomenclature and Description	Unit	Standard Unit Price
	4-287-040	Illuminator, Microscope, Junior, 110 volt, AC-DC: Complete with 100 watt lamps, (7-979-500). Suitable for darkfield illumination and general use.	Ea.	$ 8.55
		(Former Navy No. 5-225 not previously catalogued in Preliminary Edition, Catalog of Navy Material, BuMed Section.)		
X	5-422-037	Tubing, Warm Water Syringe, Ritter E Units, Serial #3411 and Above: Complete with fittings. Mfg. part No. 1464-G-3.	Ea.	$ 4.25
		(Former Navy No. S12-203 not previously published in Preliminary Edition, Catalog of Navy Material, BuMed Section.)		

(MatDiv., BuMed)

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(Not Restricted)

Changes to be Made in Copies of Manual of the Medical Department: Certain changes in the Manual of the Medical Department have been directed as specified in Circular Letter 47-35, page 26.

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(Not Restricted)

Assistantship Training in Public Health: The Bureau of Medicine and Surgery announces the availability of an Assistantship in Venereal Diseases at the Johns Hopkins University and Hospital. The course is of 11 months' duration and leads to the Degree of Master of Public Health. Less than one half of the period of instruction will be devoted to a formal course in the School of Public Health and Hygiene, and slightly more than one half will be spent in clinical activities within the Division of Venereal Diseases of the Johns Hopkins University Medical School. The latter half of the course is designed to furnish the medical officer with an adequate clinical knowledge of venereal diseases and in addition to emphasize the public health aspects of venereal diseases including measures for their control. This training at the assistantship level will be given by Dr. J.E. Moore of the School of Public Health and Hygiene.

(Not Restricted)

Requests for this training are desired from medical officers of the Regular Navy and should reach BuMed prior to 1 June 1947. Requests should be submitted in accordance with Bumed News Letter of 24 May 1946 and may be submitted by dispatch. (Professional Div., BuMed)

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Establishment in BuMed of General Inspector of Dental Services and Disestablishment of Assistant Chief of Bureau for Dentistry: See page 31 for copy of letter from the Chief of BuMed effecting this change.

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Check to be Made on Health Records: See Alnav 87 on page 32.

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14 March 1947 (Not Restricted)

To: Comdts, all naval districts except 10, 11, 15, 17; Comdts, PRNC and SRNC; Chief, NavAirTraCom; ComGens, MarBaks, Quantico and Parris Island.
Attn: District and Staff Medical and Dental Officers.

Subj: Selection of Candidates for the Training Course in Dental Technology, Prosthetic.

Refs: (a) Page 319, Navy Dept. Bulletin, All Ships and Stations Ltrs, Jan-June 1945. 45-84 Recommendations and Orders for Enlisted Personnel to Training Courses Listed in Catalog of Hospital Corps Schools and Courses, Revised 1944 - Policy with Respect to.

(b) Ltr BUMED-MH3-DCB, P11-1/MM, 20 Jan 1945, on inside front cover, and page 2, of pamphlet entitled, "Addendum to Catalog of Hospital Corps Schools and Courses, (Revised 1944), NavMed 639."

1. Dental officers who are responsible for the training of hospital corpsmen to become dental technologists, prosthetic, frequently have to drop men from the courses for various reasons, such as no desire for the instruction, lack of interest, inaptitude, and insufficient preliminary education.

2. The Dental Officer in Command, U.S. Naval Dental School, National Naval Medical Center, Bethesda, Maryland, has submitted the following information to the Bureau of Medicine and Surgery regarding the present class under instruction for the Certificate in Dental Technology, Prosthetic:

a. The class commenced one month ago with 36 members and has now dwindled to 27 members.

b. Eight of the original 36 members indicated, in signed questionnaires, that they had been assigned to dental prosthetic instruction even though they had never requested it.

c. Six of the 8 men who did not request dental prosthetic instruction have already been dropped from the class by reason of their own requests.

d. An additional 3 members who requested this course have been dropped from the class upon their own requests because they considered themselves unsuited to this particular work.

(Not Restricted)

3. From the foregoing attrition rate (25% for the first month of a six-months course) it is apparant that the dental technologists, general, who were assigned to this training in this group were not properly selected.

4. In order to correct this situation and to secure suitable candidates, who are urgently needed for dental prosthetic training, it is requested that:

a. The practice of ordering men to this instruction, contrary to their desires, in order to fill quotas, be discontinued. Compulsory training in this specialty is not considered to be good policy.

b. Dental officers interview all candidates, examine their service records and ascertain that they have the desire, aptitude and education for this training before recommending them.

c. References (a) and (b), as they apply to the procurement of candidates for training in Dental Technology, Prosthetic, be complied with.

--BuMed. C. A. Swanson

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Circular Letter 47-35 24 March 1947 (Not Restricted)

To: MedOfsCom, NavHosps (Continental Limits)

Subj: Rehabilitation Program

Refs: (a) Man. Med. Dept., par. 5137
(b) AlNav #308, dtd 11 June 1946.

1. Reference (a) which directs that a quarterly report of the progress of the Rehabilitation Program in all naval hospitals be forwarded to this Bureau is hereby canceled.

2. This action should in no way be construed as meaning that this Bureau has a lessening interest in this vital phase of medical care, or that commanding officers should not continue in every possible way to promote an active and effective program. Continuing emphasis will be directed to the component phases of the program during the course of the semi-annual inspections by the District Medical Officer, and effective procedures will be expected in all phases of the program.

(Not Restricted)

3. Physical therapy and occupational therapy shall be continued in all hospitals, and the highest type of professional care is expected in these specialties. Those phases of the Physical Training Program which have proved to be of the most value to the individual hospitals in the care of patients shall be continued under the direction of the physical therapy technicians. Every effort is being made to provide an adequate staff in these specialties.

4. Reference (b) directed that the Educational Services Program should remain in effect at all naval activities. This program is considered to be especially important in naval hospitals, and all commanding officers shall support as active a program as is possible with the personnel available. As pointed out in ref (b), Educational Services officers trained by BuPers are no longer available for assignment to individual stations, but each commanding officer was directed to provide an Educational Services Officer from within his command, at least on a collateral duty basis. It has been noted on the quarterly educational services report, NavPers 2418, that some hospitals report very little activity in this regard. Immediate steps shall be taken to remedy these deficiencies.

5. Civil Readjustment shall continue as a permanent function of the Rehabilitation Program in a sufficient capacity to meet existing requirements of each hospital. Hospital Corps officers attending the School of Hospital Administration at the National Naval Medical Center, Bethesda, Maryland, receive training in this procedure and are available for this duty when assigned to naval hospitals. The monthly report of Civil Readjustment processing continues to be of considerable value to the Bureau and shall be submitted in accordance with Par. 5128, Manual of the Medical Department.

6. The following changes shall be made in the Manual of the Medical Department:

a. Delete paragraph 5137.

b. Delete "Rehabilitation Program Progress Report, page 477.

c. Delete "Rehabilitation Program Progress Report, Index, page 586.

--BuMed. C. A. Swanson

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Circular Letter 47-36 24 March 1947 (Not Restricted)

To: MedOfsCom, NavHosps

Subj: Hospital Welfare Funds, disposition of.

Refs: (a) SecNav Ltr, 17 May 1946 (N.D. Bull. Item 46-1071).
(b) BuPers CirLtr No. 216-46, 23 Sep 1946 (N.D. Bull. Item 46-1942).
(c) BuMed CirLtr 43-146, 11 Sep 1943 (BuMed Bull. of CirLtrs).

This letter from the Chief of BuMed states that in accordance with references (a) and (b) the determination whether an independent recreation fund is to be maintained is for local decision in accordance with local circumstances, and that regardless of the decision reached funds donated specifically for hospital patients are to be utilized solely for that purpose. As a general policy welfare or recreation funds of naval hospitals shall not be merged with similar funds of other naval activities. Such funds should be spent on authorization of the medical officer in command subject to the controls in references (a) and (b). The Chief of Personnel concurs in the above general policy. Funds donated to naval hospitals shall be handled according to reference (c).

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Circular Letter 47-37 24 March 1947 (Not Restricted)

To: All Ships and Stations

Subj: Stock No. 1-607-875, Rabies Vaccine, 14 doses; requisitioning and stocking of.

1. In the future, subject item will be stocked by Medical Supply Depots and Hospital Ships only and shall not be stocked by field activities.

2. Requisitions for Rabies Vaccine shall be submitted by priority despatch to the nearest Naval Medical Supply Depot or Hospital Ship.

3. Delivery of the needed vaccine shall be expedited to the requisitioning activity by the first available air transportation.

4. Existing supplies of the vaccine which are at present in stock in field activities shall be retained for their total potency period.

--BuMed. C. A. Swanson

Circular Letter 47-38 28 March 1947 (Not Restricted)

To: All Ships

Subj: Medical Department Correspondence Files and Records of Ships in Reserve and Inactive Status, Change in Disposition of.

Refs: (a) BuMed Cir Ltr No. 44-154.
(b) BuMed Cir Ltr No. 45-150.
(c) BuMed Cir Ltr No. 46-17.
(d) BuMed Cir Ltr No. 46-65.
(e) Par 12B11, Man. Med. Dept.
(f) Article 2040(1), N.R., 1920.

1. Pending page changes in paragraph 12B11, Manual of the Medical Department, ships in reserve and inactive status shall retain on board all correspondence files and records, with certain exceptions stated below.

2. When a ship is placed in a reserve status or an activity is placed in an inactive status, all Medical Department correspondence files and records, including property records, shall be processed in accord with the BuMed Field Records Schedule (ref.b), and retained on board in the Medical Department files in accord with reference (f). However, the records listed under items 31, 41, 43, 44, 45, 60, 61, 72 and 74 of reference (b) shall be transferred to the appropriate naval records management center. Disposition of health records shall be in accord with Part II, Chapter 2, Manual of the Medical Department, as modified by existing letter instructions.

3. Ships decommissioned for disposal shall dispose of their records as required under references (a), (b), (c) and (d) which require that the records be inventoried, boxed and transferred to a Navy Records Management Center, or destroyed in accordance with the BuMed Field Records Schedule.

--BuMed. H.L. Pugh

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Circular Letter 47-39 28 March 1947 (Not Restricted)

To: All Stations

Subj: Accounting Instructions, Medical Supply Depot Equipment Reclassified as Supplies.

Ref: (a) BuMed Circular Letter 46-143 dated 27 September 1946 (ND Bulletin 46-1934)

(Not Restricted)

This letter from the Assistant Chief of BuMed further clarifies (but in no way modifies) the instructions contained in reference (a).

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Circular Letter 47-40 28 March 1947 (Not Restricted)

To: MOinC, All U. S. Naval Hospitals

Subj: Class 11, Catalog of Navy Material, BuMed Section, (Occupational Therapy Materiels), Procurement of; Instructions concerning.

Ref: (a) BuMed Cir. Ltr. No. 46-68, dated 15 April 1946

1. The Bureau has completed arrangements with the Army whereby materials used in Occupational Therapy, Class 11, BuMed Section, Catalog of Navy Material, will be obtained from the U. S. Army, St. Louis Medical Depot, 12th and Spruce Streets, St. Louis 2, Missouri, beginning 1 July 1947 and this letter from the Acting Chief of BuMed contains instructions governing this procedure.

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Circular Letter 47-41 31 March 1947 (Not Restricted)

To: All Ships and Stations

Subj: Spectacles for Navy and Marine Corps Personnel on Active Duty

Ref: (a) BuMed ltr BUMED-TWM-LRD-B, P2-3 dated 9 July 1945

1. In view of the fact that individuals with less than 12/20 visual acuity would be handicapped while awaiting the repair or replacement of spectacles, it is directed that paragraph 4 of reference (a) be amended to include the following:

"Two (2) pairs of spectacles may be issued to recruits during the training period provided the visual acuity, uncorrected, is less than 12/20 in either eye".

--BuMed. H.L. Pugh

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26 March 1947 (Not Restricted)

To: Assistant Chiefs of Bureau and Chiefs of Divisions, BuMed.

Subj: Establishment of General Inspector, Dental Service, Code 15, and Disestablishment of Assistant Chief of Bureau for Dentistry, Code 6.

Ref: (a) BuMed-E-DG, A3-4/EN directive dated 7 June 1946; Top Management of the Bureau of Medicine and Surgery; Organization of.
(b) BuMed-E-DG, A3-4/EN directive dated 13 June 1946; General Inspector, Medical Department, Establishment of.
(c) BuMed-E-DG, A3-4/EN directive dated 20 Aug 1946; Reorganization of Dental Functions and Establishment of a Dental Division, Bureau of Medicine and Surgery.
(d) General Order No. 228 dated 20 Dec. 1945; Office of Naval Inspector General and General Inspectors in the Naval Establishment.

1. The Office of the General Inspector, Dental Service, is hereby established.

2. The General Inspector, Dental Service, shall report directly to the Surgeon General and shall perform the following functions:

(a) Appraise and make recommendations of all inspection reports of dental activities throughout the Naval Establishment, including the Marine Corps.

(b) Conduct such inspections and investigations of dental activities as the Surgeon General may direct.

(c) Prepare reports of special inspections and investigations.

3. The position of Assistant Chief of Bureau for Dentistry, Code 6, is hereby disestablished. Rear Admiral A. G. Lyle, (DC) USN has been designated General Inspector, Dental Service.

4. The Dental Division, Code 61, and the various branches and sections assigned to it shall retain their present code numbers.

5. Rear Admiral A. W. Chandler, (DC) USN will continue as Chief of the Dental Division.

6. References (a), (b) and (c) are modified accordingly.

--BuMed. C. A. Swanson

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ALNAV 87 26 March 1947 (Not Restricted)

Subj: Health Records

Many Ships and stations, particularly district commandants' offices and receiving stations, are not complying with the instructions outlined in Alnav # 9 of 1947. It is directed that these instructions be complied with immediately.

--SecNav. James Forrestal

Note: Alnav 9 of 10 January 1947 read as follows:

"Check all health records now on board against muster roll and forward records of all personnel not attached and whose present stations cannot be ascertained to the Bureau of Medicine and Surgery immediately."

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